Industrial Pretreatment Quarterly

Published for Industrial Dischargers by the King County Industrial Waste Program




King County
Wastewater Treatment Division
Industrial Waste Program

Volume XXVIII Issue 2 June 2004

Mission Statement

The mission of the Industrial Waste Program is to protect the environment, public health, biosolids quality, and King County's regional sewerage system. We work cooperatively with our customers as we regulate industrial discharges, provide technical assistance, and monitor the regional sewerage system.

Industrial Waste Advisory Committee

Kevin Burrell,
Environmental Coalition of South Seattle (ECOSS)
Ken Gross, GM Nameplate
Sandy Hallberg, Asko Processing
Scott Woerman, North Creek Analytical
Donna Hoskins, Berlex Laboratories
Bill Hughes, Circuit Partners
Mike Jeffers, Envirotech Systems
Kim Niino, Safeway Distribution Center
Tom Raymond, Honeywell, Inc.
Steve Skodje, Cargill, Inc.
Doris Turner, Boeing Commercial Airplane Group- Renton
Chris VanHoof, City of Kent

2003 Rewards and Recognition Program

(Awarded in 2004 and listed here throughout that year)

EnvirOvation Award

Honeywell International

Commitment-to-Compliance Award

Kenworth Truck Company
Weyerhaeuser Company

Honeywell International Wins 2003 EnvirOvation Award

In April the King County Industrial Waste program (KCIW) announced the 2003 EnvirOvation Award winner - Honeywell International of Redmond.

KCIW's EnvirOvation Award is annually given to one or more companies with wastewater discharge permits that have: voluntarily implemented an innovative pollution prevention strategy; significantly updated their pretreatment equipment or methods; significantly reduced the amount of wastes being discharged to King County sewers, or significantly reduced their water use.

Honeywell employees,1st row, l.to r.: John Williams, Joe Elsom, (KCIW's) Elsie Hulsizer, Gary Wieland, Tom Raymond. 2nd row: Don Warner, Greg Lambert; top, (KCIW's) Dave Haberman.

Honeywell of Redmond is part of the corporation's Aerospace division that serves the airline and avionics flight safety industry. Honeywell earned the award for voluntarily updating its wastewater pretreatment equipment and methods. The company has spent more than $1.7 million for a state-of-the-art system with many safety features, redundant controls and monitoring features. The system neutralizes acidic wastewater from the company's metal-finishing and electronic-component operations, resulting in an approximate 33% reduction

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Inside this Issue

KCIW News Briefs

You are invited to attend a technical assistance seminar entitled "Industrial Waste Discharge Permits 101" to be held 9 a.m. to 10:30 a.m. in Seattle's Fremont area on November 16, 2004. This free, basic information seminar will require a minimum of ten persons to preregister. Registration will take place in September 2004. Please note that this event is *not* the workshop and treatment plant tour that takes place every other year.

Please watch for further information in the September edition of this newsletter and on KCIW's Web pages.

Summary, May Industrial Waste Advisory Committee (IWAC) Meeting:

1. Announcements: Copies of the Executive Summary portion of the *King County 2003 Annual Pretreatment Report* were given to IWAC members. *If interested, copies of the report are available by contacting Kristin Painter at 206-263-3002 or e-mail* kristin.painter@metrokc.gov

2. Cedar Grove Composting Facility Upgrades: Susan Tohlman, of Cedar Grove Composting, presented an overview of upgrades at Cedar Grove's Maple Valley facility. The facility has been in operation since 1989, and processes 195,000 tons per year of yard trimmings and some pre-consumer feedstocks. Their latest technology upgrades now allows them to handle post-consumer food scraps and soiled paper from residential and commercial generators. *Susan Tohlman's contact information is available through Barbara Badger at 206-263-3024 or by e-mailing* barbara.badger@metrokc.gov

3. Industrial Waste Web Page Update: Dana West, Industrial Waste Communications Specialist, presented new additions to a page currently named "Useful Links" within the Industrial Waste Web pages, asking for feedback and suggestions. KCIW is revising this page, which contains regulatory and agency contact information. IWAC suggested the addition of a "Frequently Asked Questions" page. *With suggestions for the Web pages, please contact Dana West at 206-263-3018 or e-mail* dana.west@metrokc.gov

4. Todd Pacific Shipyards Permit – Peggy Rice and Bruce Tiffany gave a brief overview of the permitting process and pretreatment engineering approval for Todd Pacific Shipyards to discharge contaminated industrial stormwater to the sewer system. Todd Shipyards has installed a new industrial stormwater collection and treatment system, which includes separation of roof and employee parking lot stormwater from contaminated stormwater, collection and conveyance of more than 10 acres of industrial yard pavement runoff to on-site detention, treatment of hydroblasting wastewater, and

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Gold Award

Acu-Line Corporation
Alaskan Copper Works – 6th Ave.
Avtech Corporation
B.S.B. Diversified Company
Ball Metal Beverage Container Corp.
Boeing Commercial Airplane – North Field
Boeing Commercial Airplane – Renton
Boeing Electronics Center
BP-Arco Petroleum
Burlington Environmental
Burlington Northern/Santa Fe Railroad Company
Carnitech US, Inc.
Color Tech
Crane-Eldec Corporation – Martha Lake Facility
Davis Wire Corporation
Emerald Sanitary Services LLC
Glacier Northwest
GM Nameplate, Inc.
Honeywell International, Inc.
Industrial Container Services, Inc.
Industrial Plating Corporation
Island Spring, Inc.
Kenworth Truck Company
King County CIP –- Henderson/MLK CSO
Marco Shipyard Seattle, Inc.
Mastercraft Metal Finishing, Inc.
Mikron Industries
Northstar Beverage Company
Pacific Iron & Metal
Pepsi-Cola Company
Philip Environmental Services Corp.
Precor USA – Plant 1
Precor USA – Plant 2
Protective Coatings, Inc.
Prototron Circuits, Inc.
Puget Sound Energy
Rexam Beverage Can Company
Safeway, Inc. – Beverage Plant
Seattle FilmWorks Manufacturing / PhotoWorks, Inc.
Seattle Solid Waste – Kent Highlands Landfill
Skills, Inc. (Ballard)
Smith Fabrication, Inc.

Surftech Finishes Company
Time Oil Company
Tri-Way Industries
Universal Brass, Inc.
Universal Sheet Metal, Inc.
Vectra Fitness
Viox Corporation
Western Metal Arts
Western Pneumatic Tube
Weyerhaeuser Company

Silver Award

Aero Controls, Inc. – 20th Street NW
Aerojet – General Corporation
Amgen Corporation
Cedar Grove Composting, Inc.
Circuit Partners, Inc.
Circuit Services WorldWide LLC
Costco Wholesale
Crane-Eldec Corporation – North Creek Facility
Emerald Recycling
Exotic Metals Forming Company
Interstate Brands Corporation – Hostess
Kerry, Inc.
King County CIP – Denny Way CSO/ Mercer Tunnel
King County Solid Waste – Cedar Hills Landfill
Magnetic and Penetrant Services Co.
Philips Ultrasound, Inc.
Puget Sound Recycling
Quality Finishing, Inc.
Rabanco Recycling Company
Skills, Inc. (Auburn)
TTM Technologies, Inc.
Universal Manufacturing, Inc.

Industrial Pretreatment Tips

Identify your waste and generator requirements

The following information is taken from the Step by Step Fact Sheet for Hazardous Waste Generators located on the Washington State Department of Ecology's Hazardous Waste and Toxics Reduction Program Web site: ***http://www.ecy.wa.gov/programs/hwtr/index.html****.*

The fact sheet is designed to help you determine if you are a generator of hazardous waste subject to *Washington's Dangerous Waste Regulations (Chapter 173-303 WAC)*. The following section highlights some common misconceptions about what is and is not a waste. In general, a waste is any material you intend to discard or burn (unless it's a fuel).

True or false: It's not my waste because I lease/rent the parts cleaner and cleaning compound. The company supplying the original material or the recycler who returns a clean product to me is responsible for the waste.

FALSE. The generator of a hazardous waste is the person whose actions or business operations cause the clean material to become contaminated and unusable for its intended purpose.

True or False: It's not my waste because someone else dumped it on my property or a previous owner or renter left the waste behind.

FALSE. If the waste is on your property, you are responsible for ensuring that it is properly handled and disposed. You cannot neglect it and expect someone else to handle the problem.

True or False: It really isn't a waste because I recycle the material on my premises with my own recycling equipment.

FALSE. The material has been rendered unusable until recycling makes it usable again. Unless you are using a hard piped, closed loop process, you must determine if the waste is hazardous prior to recycling. If it is hazardous, then handle it according to the regulations.

Mikron's Change Process

This article was written by Larry Petersen, Environmental Affairs, Mikron Industries, Kent. Occasionally this newsletter will run stories from companies sharing information about technologies, processes and innovations that help protect water quality.

Mikron Industries designs and manufactures extruded profiles used in window and door systems. Due to our growth and increased wastewater flow rate, we became regulated under a King County wastewater discharge permit in 2001. During the initial period of the new permit, Mikron experienced many bumps and hurdles that tested our relationship with the King County Industrial Waste program (KCIW).

Since 2002 Mikron has made great strides to advance that relationship by refining our Best Management Practices (BMPs) and improving the quality of effluent being discharged to the sanitary sewer system. The result of Mikron's hard work and perspiration was our receiving a Gold Award from the Industrial Waste program for 2003.

Mikron started the change process for solving the sampling and discharge problems in June 2002. Because Mikron had only recently become permitted by KCIW, we had to build a working relationship. The main issues were BMPs relating to housekeeping, including spillage of PVC powders and mineral spirits into the floor trenches that subsequently discharged to the sanitary sewer.

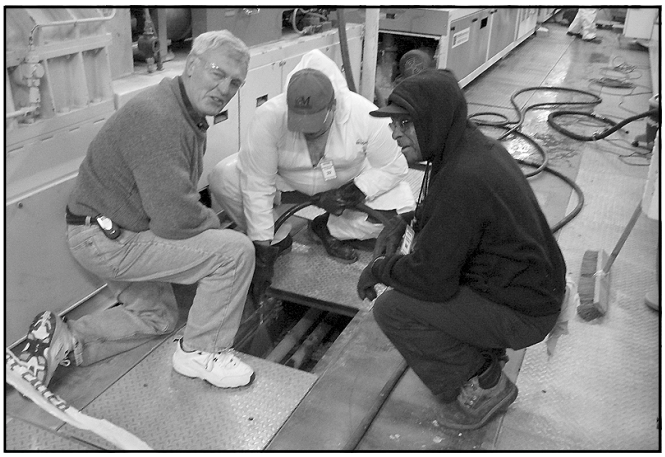
To assist Mikron in achieving and maintaining compliance, KCIW audited our facilities in August of 2002. The audit lasted all day, and resulted in six typed pages of compliance notes and corrective actions. Our next step in this process was to garner management support and develop a plan to correct existing compliance issues and prevent new issues. This was accomplished by:

- Establishing an itemized action list for each department identifying issues that needed correction.
- Identifying individuals responsible for completion of action items and assigning deadlines for completion.
- Continual follow-up to check progress.
- Purchase and installation of appropriate spill containment, secondary containment, and other equipment necessary to achieve and maintain compliance.
- Repair or replacement of equipment that contributed to non-compliance.
- Conducting in-house environmental audits for each of the various departments. An action list and compliance schedules were established for the manager and a copy of the report was reviewed by upper management.

Managers started to see that environmental changes were needed. Conditions and "environmental morale" started to improve. As our compliance programs progressed, managers became more involved and actively sought compliance assistance. We saw the following changes:

- Housekeeping improved.
- BMPs were easier to achieve and maintain.
- More employees started asking appropriate questions and became the real guardians of environmental stewardship.
- Mikron management became more environmentally conscious and genuinely supported employees' efforts to achieve and maintain compliance.

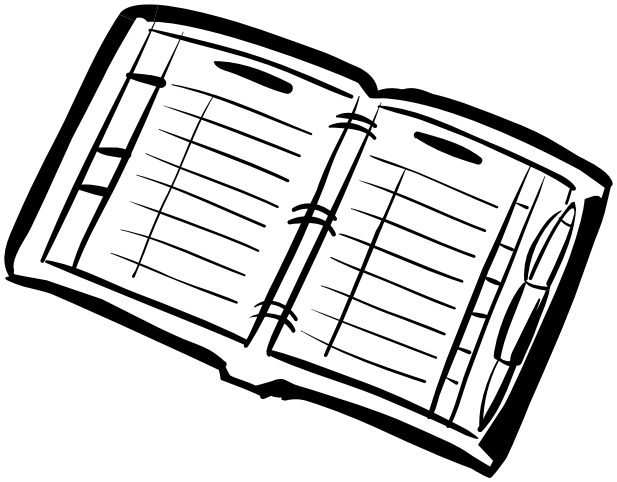
Two other changes worth noting are: The use of an outside contractor to clean all of Mikron's floor trenches on an annual basis and install filtration systems. This reduces the possibility of discharging FOG (fats, oils, and grease) and particulate matter. The second, and possibly most important change has been implementation of what is known as a "5S" program* for housekeeping which results in a cleaner, safer, and more productive environment at Mikron.



Mikron's Larry Petersen (left), with personnel from Environmental Quality Management working on annual cleaning of trench drains.

Mikron management is quite proud of winning its first Gold Award, with much-deserved recognition to Mikron personnel who implemented the changes step-by-step. With a lot of hard work and team effort, Mikron is trying to achieve the same goal for 2004.

**Editor's note: "5S" is a fundamental approach to productivity and quality improvement applied to all types of business and particularly effective at plants and factories. "5S" is the acronym for five words in the Japanese language which translated are: "organization," " orderliness," "cleanliness," "organized cleanup," and "discipline."*



EnvirOvation continued from page 1

of the corrosive wastestream neutralized before entering the sewer system.

The awards program reinforces the purpose of King County's industrial waste regulations: to protect public health and the environment by preventing businesses from discharging substances that can degrade wastewater treatment, harm workers, damage facilities or reduce surface-water quality.

EnvirOvation Award winners are eligible to win the County's Green Globe Leader in Industrial Waste Reduction Award.

IWAC Meeting continued from page 2

controlled and metered discharge to the sanitary sewer, meeting discharge flow limits set by the City of Seattle. *For more information, please contact Peggy Rice at 206-263-3028 or email* peggy.rice@metrokc.gov *or phone Bruce Tiffany at 206-263-3011 or email* bruce.tiffany@metrokc.gov

5. European Union's Waste Electronics and Electrical Equipment Recycling Mandate: Ken Gross of GM Nameplate gave a presentation about the European Union's upcoming waste electronics and electrical equipment recycling mandate. The European Union (EU) intends to introduce the RoHS directive (Restriction of the use of certain Hazardous Substances) which will require manufacturers of electrical and electronic equipment, sold within the EU area, to stop using six hazardous substances in their products. The six materials are currently used for a wide variety of applications and in many different products. The banned substances are: Lead; Cadmium; Mercury; Hexavalent chromium; Polybrominated biphenyls (PB); and Polybrominated diphenyl ethers (PBDE)
These restrictions will apply to all electronics equipment sold within the EU area. Therefore equipment manufactured in the U.S. and other countries outside of Europe will have to comply in order to be sold within the EU. Many U.S. and Far East companies have been working on alternatives to these six substances for several years so that by the time the directive comes into force, alternative products will be available in most cases.

The next Industrial Waste Advisory Committee (IWAC) meeting: *will take place November 3, 2004 from 9 a.m. to noon in Room 105 at 130 Nickerson Street (Canal Place office park), Seattle WA 98109. Agenda to be determined.*

***The meeting site is wheelchair accessible. People who jave special needs or disabilities for which arrangements must be made ahead of time should contact the Industrial Waste Program. Call 206-263-3000 (voice) or the Washington Relay Service at 1-800-833-6388 or email* kristin.painter@metrokc.gov.**

Industrial Pretreatment Tips

Pollution Prevention through Water Conservation

The article below was first published in the Washington State Department of Ecology's publication Shoptalk in the winter of 1994. The information is still pertinent to today's businesses that use water as part of their industrial process. Conserving water not only reduces water supply costs, it also reduces sewage disposal costs.

Your facility can make great strides toward reducing pollution by incorporating water conservation strategies into your business operations. Conserving water can add up to huge cost savings, often with little investment.

Conserving water through reduction, reuse or recycling has a number of advantages. Reduced utility costs, less raw material use and lower sewer discharge fees are some obvious cost savings. Less obvious benefits of water conservation include lower use of treatment chemicals and reduced sludge generation.

For example, in the original process used by a small electronic component manufacturer, components were plunged into rinse tanks after they went through the plating baths. The rinse water flowed independently to each tank, drained into a sump, and then was pumped into a combined waste water treatment system. There, caustic soda was added to neutralize and settle out any heavy metals. No flow controls existed for the system, and the initial flow rate was 33 gallons per minute. By making a few changes, the flow of waste water into the treatment system was cut to 12 gallons per minute-a reduction of 64 percent.

To conserve water and improve rinsing, employees increased the amount of time parts stayed over the plating bath. This change decreased the amount of plating material carried over into the rinse tanks. They also added a plug with a small hole drilled in it to restrict the amount of water running into the rinse tanks.

After six months, the production manager noted the following results:

- Lower water/sewer bills.
- Reduced pumping, mixing and filter press operation cut electric bills.
- Less caustic soda was used because it took fewer chemicals to adjust the pH for the lower waste water volume. Operators could refill the caustic tank less often, reducing the health risks associated with chemical exposure.
- Less sludge with a higher metal content. The higher metal concentration made the sludge better suited for reclamation, potentially reduc ing disposal costs.
- Improved treatment efficiency and reduced metals in the effluent.
- Excess chemicals dripped back into the plating baths rather than being washed away by the rinse tanks.

The total capital investment for these changes: less than $100! [In 1994 dollars.]

Your facility would likely experience the same benefits from the many advantages offered by a water conservation program. Great savings can result from optimizing your treatment system as you reduce your water use. If you don't have a pretreatment system, your efforts will help your community sewer treatment plant.

KCIW's Component Agency Update:
WASWD Spring Conference

On April 15 Industrial Waste Compliance Investigators Patricia Magnuson and Peggy Rice spoke at the Washington Association of Sewer and Water District's (WASWD) Spring Conference in Yakima.

Both investigators were invited to speak about emerging regulatory issues relevant to sewer districts. In recent years, King County began regulating mercury discharges from dental offices and wastewater from hospitals' laboratories.

In addition to King County Industrial Waste's presentations, the WASWD provided information and education on ethics, financial management, water rights and other state legislative issues relevant to water and wastewater. About 150 elected commissioners and utility managers attended the conference.

The next WASWD conference will be held in Spokane on September 15, 16, and 17.

Contact the Washington Association of Sewer & Water Districts at 206-246-1299 or visit them at **www.waswd.org** on the Internet.

For more information about King County's regulation of dental office and hospital wastewater discharges, go to Industrial Waste's Web pages at ***http://dnr.metrokc.gov/wlr/indwaste/index.htm****, and select these topics from the side navigation bar. Or call KCIW at 206-263-3018.*

KCIW is interested in learning about the needs and interests of King County component agencies. Please email Pat Magnuson at pat.magnuson@metrokc.gov or call her at 206-263-3028, or email Peggy Rice at peggy.rice@metrokc.gov or call 206-263-3028.

Publication of recent enforcement actions

This publication reports companies that were the subject of enforcement actions during the period of March 2004 through May 2004 (or have not been published previously) and their violations met one or more of the following criteria:

- Were found in significant noncompliance during the reporting period;
- Received fines; or
- Had violations that were unique or warrant special attention.

During this period King County Industrial Waste have not issued any enforcement actions that meet the above publication criteria, however we have issued enforcement actions of a lesser magnitude for a chromium violation based upon self-monitoring data and one for a total toxic organic violation.

This information is available on advance request in accessible formats for persons with disabilities. Please call 206-263-3000 or TTY relay service at 1-800-833-6388.

Honeywell International-2003 EnvirOvation Award Winner

Nominations for EnvirOvation Award

Nominations for KCIW's for EnvirOvation Award are due December 15. To learn about nomination criteria and to access an aplication, visit: **http://dnr.metrokc/gov/wlr/indwaste/Awards.htm** on our Web pages, or contact Kristin Painter at 206-263-3002 or email kristin.painter@metrokc.gov.

Printed on recycled paper

40399.p65

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